



# The influence of the Mediterranean diet on mood states, anxiety, and depression

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Mental disorders are a prevalent global issue, being among the highest contributors to the global disease burden. The indicative bi-directional pathway between the brain and the gut microbiota may present an opportunity for dietary involvement in mental health management.<sup>(1)</sup> The anti-inflammatory and anti-oxidative properties of the Mediterranean diet (MedDiet) have been suggested to reduce the risk and severity of anxiety and depression symptomology, with limited understanding on mood improvement.<sup>(2,3)</sup> The present study primarily aimed to investigate the effect of an eight-week MedDiet intervention on mood states, anxiety symptomology, and depression symptomology, and compare these effects against Australian dietary recommendations. A sixteen-week Randomised Controlled Trial with a crossover design was conducted, in which participants from the general population were randomised into a MedDiet or Australian Guide to Healthy Eating (AGHE) intervention, each of eight-week durations. Assessments prior to and following each dietary intervention included dietary questionnaires to assess habitual dietary intake and dietary adherence, and mental health questionnaires (i.e., Profile of Mood States, Hospital Anxiety and Depression Scale, and Depression, Anxiety, and Stress Scale) to evaluate the primary outcomes of mood states, anxiety symptomology, and depression symptomology, with stress symptomology as a secondary outcome. Fifty-seven adults aged 19–54 years participated in the study (AGHE  $n = 54$ ; MedDiet  $n = 51$ ). Significant improvements in depression ( $p < 0.01$ ) and stress ( $p < 0.05$ ) symptomology were demonstrated following the MedDiet. Whilst no significant change in anxiety symptomology or mood states were observed following the MedDiet ( $p > 0.05$ ). A trend towards favourable outcomes following the MedDiet intervention included reduced 'Tension' ( $p = 0.09$ ) and increased 'Vigour' ( $p = 0.07$ ) of mood subscales. All mental health outcomes were similar between the MedDiet and AGHE interventions ( $p > 0.05$ ). These results suggest that the MedDiet may be beneficial in the management of some aspects of mood, depression symptomology, and stress symptomology, within the general population. Furthermore, this research may imply a potential for the MedDiet to be integrated into existing mental healthcare programs for enhanced treatment efficacy and to advance the field of nutritional science.

## References

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